

English Translation of Reference (3)

JP-A-2000-302777

**Patent Application No.:** 11-118383  
**Filing Date:** April 26, 1999  
**Laid Open Date:** October 31, 2000  
**Applicant:** Osaka city  
**Title of the Invention:** PRODUCTION OF VITAMINS

**Pertinent Part:**

Claim 7        A method for making the vitamins which have the hydroxyl group according to claim 5 or 6 in which said vitamins are tocopherol and/or tocotrienol.

[0014]        In a more desirable embodiment, the vitamins which have said hydroxyl group are tocopherol and/or tocotrienol.

[0025]        Scum and salvaged material are by-products in the manufacturing process of edible oil and fat. Since many vitamins especially tocopherol, tocotrienol, and sterol are contained in the by-product of vegetable oil and fat, and salvaged material, the scum and salvaged material of vegetable oil and fat are preferred. As vegetable oil and fat, soybean oil, rice bran oil, palm oil, safflower oil, corn oil, oleum rapae, cottonseed cake oil, olive oil, peanut oil, etc. are mentioned. Scum and salvaged material contain vitamins (especially tocopherol and tocotrienol), sterol (brassicasterol, campesterol, stigmasterol,  $\beta$ -sitosterol, etc.), free fatty acids, fatty acid ester (triglyceride, diglyceride, monoglyceride), and other hydrocarbon.